

## Report Of Investigation

|  |              |  |
|--|--------------|--|
| <b>INVESTIGATION DATE</b>  |              | <b>FROM:</b><br>(Use Stamp)  |
| Current 4/15/80  | Last 3/20/80 |  |
| <b>TO: (Facility Name, Location &amp; Address)</b><br><br>Des Moines Barrel and Drum<br>S. E. 19th and Scott<br>Des Moines, Iowa |              | <b>Persons Contacted (Name &amp; Position)</b><br><br>Virgil Smith - Owner<br><br>Gene Evans - DEQ Staff |
| <b>RE: (Specify Investigation Purpose Or Cite Rule)</b><br><br>400-27.149(2), IAC  |              |  |

**OBSERVATIONS/RECOMMENDATIONS**

A return visit we made to the Des Moines Barrel and Drum facility on 4/15/80 to perform additional testing on accumulated sludge prior to issuance of disposal instructions by this Department. Sample sets were taken from 3 locations in or around Des Moines Barrel and Drum's sludge pit, including: (1) the sediment just inside the water's edge on the northwest side of the sludge pit, (2) from the pile of sludge (approximately 4' x 35' x 25') northeast of the sludge pit, and (3) from the water on the northwest side of the sludge pit. Each set of samples was analyzed for organics and heavy metals. Results are attached.

Results show significant heavy metals concentrations for arsenic (tested only in the water sample) cadmium, chromium, copper, lead, mercury (tested only in the water sample), and zinc. Organics scan revealed significant levels of thimet (an organophosphate insecticide-oral LD<sup>50</sup> 2-4mg/kg) in samples collected from the pit sediment and from the sludge pile. Other organic substances identified in all 3 samples included dioctyl phthalate (a plasticizer for resins and elastomers), xylene (an organic solvent), oxygenated alkanes, and petroleum hydrocarbons.

These analysis results should be carefully considered when instructions for disposal of sludge wastes from this facility are issued by this Department, further action should be taken to see that wastes generated by this facility are prevented from entering the environment by percolation or runoff.

30323084



Superfund

|  |  |                    |
|--|--|--------------------|
| <b>SUSPENSE DATE</b>   | <b>Signature</b>   | <b>Date</b>        |
| 1/1  | Inspector<br><i>Mark Powell</i><br>Regional Administrator<br>Environmental Specialist<br><i>Jack W. Allen</i> P.E. | 7/24/80<br>7/24/80 |
| <b>Enclosures (Specify)</b>  |  |                    |
| <b>Distribution: Regional Office: Central Office: Inspected Facility</b> |  |                    |

**WATER QUALITY REPORT  
METALS**

STATE OF IOWA LABORATORY, Des Moines Branch  
The University of Iowa  
515:281 1

|                   |   |  |  |
|-------------------|---|--|--|
| Town              | Des Moines                                | Des Moines                                 |  |
| Source            | Des Moines Barrel & Drum-SE 19th & Scott- | Des Moines Barrel & Drum-SE 19th & Scott-  |  |
| Specific Location | Sediment from NW edge of pond             | Sludge pile-Central portion of sludge pile |  |
| Date Collected    | 4/15/80 (~10:32 am)                       | 4/15/80 (10:25 am)                         |  |
| Date Received     | 4/15/80                                   | 4/15/80                                    |  |
| Lab Number        | 7010                                      | 7011                                       |  |

**METALS ANALYSIS (parts per million by dry weight)**

|                      |      |      |
|----------------------|------|------|
| Arsenic              |      |      |
| Barium               |      |      |
| Cadmium              | 6    | 6    |
| Chromium, Total      | 710  | 240  |
| Chromium, Hexavalent |      |      |
| Copper               | 65   | 73   |
| Lead                 | 4600 | 2000 |
| Mercury              |      |      |
| Nickel               | 20   | 30   |
| Selenium             |      |      |
| Silver               |      |      |
| Zinc                 | 1300 | 1100 |

**REMARKS:**

**COLLECTOR  
REPORT TO**

Gene Evans  
DEQ-Land Quality  
Wallace Building  
Des Moines, IA

Date Reported **MAY 20 1980**

W.J. Hausler Jr., Ph.D.  
Director

environment by percolation or runoff.

**SUSPENSE DATE**

**Signature**

**Date**

Inspector

*Michael J. Owens*  
Regional Administrator

Environmental Specialist

7/24/80

*Jack W. Clemens, P.E.*

7/24/80

**Closures (Specify)**

Distribution: Regional Office: Central Office: Inspected Facility

RP-5 (8-79)

**WATER QUALITY REPO. METALS**

STATE HYGIENE LABORATORY, Des Moines Branch  
The University of Iowa  
515:281-537

|                   |   |  |  |
|-------------------|---|--|--|
| Town              | Des Moines                                      |  |  |
| Source            | Des Moines Barrel & Drum                        |  |  |
| Specific Location | SE 19th & Scott, from west side of pond (water) |  |  |
| Date Collected    | 4/15/80 (10:20 am)                              |  |  |
| Date Received     | 4/15/80   |  |  |
| Lab Number        | 7012  |  |  |

**METALS ANALYSIS (as mg/l unless designated otherwise)**

|                      |       |  |
|----------------------|-------|--|
| Arsenic              | 0.06  |  |
| Barium               | 0.4   |  |
| Cadmium              | 0.004 |  |
| Chromium, Total      | 0.74  |  |
| Chromium, Hexavalent |       |  |
| Copper               | 0.30  |  |
| Lead                 | 2.6   |  |
| Mercury              | 0.15  |  |
| Nickel               | <0.2  |  |
| Selenium             | <0.02 |  |
| Silver               | <0.02 |  |
| Zinc                 | 7.2   |  |

RECEIVED  
MAY 6 9 33 AM '80  
ENVIRONMENTAL QUALITY

**REMARKS:**

Results reported as total metals

**COLLECTOR REPORT TO**

Gene Evans - Land Quality  
DEQ  
Wallace Building  
Des Moines, IA

Date Reported **MAY 01 1980**

W.J. Hausler Jr., Ph.D.  
Director

|  |      |  |
|--|------|--|
| <b>PHOSPHATE: Filtrable P</b>            |      |  |
| <b>Total P</b>                           |      |  |
| Dissolved Oxygen                         |      |  |
| BOD                                      |      |  |
| <b>COD</b>                               | 6480 |  |
| Grease or Oil                            |      |  |
| Turbidity (JTU)                          |      |  |
| Total Hardness (as CaCO <sub>3</sub> )   |      |  |
| Calcium (Ca <sup>++</sup> )              |      |  |
| Magnesium (Mg <sup>++</sup> )            |      |  |
| Chloride (Cl <sup>-</sup> )              |      |  |
| Sulfate (SO <sub>4</sub> <sup>-2</sup> ) |      |  |
| al Organic Carbon                        | 1680 |  |

**RKS:**

**COLLECTOR REPORT TO**

Osweller  
DEQ #5  
Des Moines, IA

W.J. HAUSLER, JR., Ph.D.  
DIRECTOR

**MAR 31 1980**

Town: Des Moines  
Source: Des Moines Barrel & Drum  
Location: SE 19th & Scott--sediment  
from NW edge of pond

Date Collected: 4/15/80

Date Received: 4/15/80

Lab Number 7010

Original pH 4.5

LEACHATE ANALYSIS

|            | <u>Neutral</u> | <u>Acidified</u> |
|------------|----------------|------------------|
| Initial pH | 6.8            | 4.5              |
| Final pH   | 6.0            | 5.0              |
| Cadmium    | <1             | <1               |
| Chromium   | <1             | 2                |
| Copper     | <1             | <1               |
| Lead       | 5              | 38               |
| Nickel     | <5             | 4                |
| Zinc       | 300            | 670              |

Des Moines  
Des Moines Barrel & Drum Sludge Pile  
SE 19th & Scott--central portion  
of sludge pile

4/15/80

4/15/80

7011

Original pH 5.2

LEACHATE ANALYSIS

|            | <u>Neutral</u> | <u>Acidified</u> |
|------------|----------------|------------------|
| Initial pH | 7.2            | 5.3              |
| Final pH   | 6.6            | 5.8              |
| Cadmium    | <1             | <1               |
| Chromium   | <1             | <1               |
| Copper     | <1             | <1               |
| Lead       | <7             | <7               |
| Nickel     | <7             | <7               |
| Zinc       | 58             | 260              |

Metals results reported as milligrams per kilogram

RECEIVED  
JUN 2 10 05 AM '80  
DEPARTMENT OF ENVIRONMENTAL SCIENCE

Report to:

Gene Evans  
DEQ - Land Quality  
Wallace Building  
Des Moines, IA

Date Reported: MAY 29 1980

WJ Hausler, Jr., PhD.  
Director